

Notice of Allowability	Application No.	Applicant(s)	
	10/069,086	WEIDMANN ET AL.	
	Examiner	Art Unit	
	John Juba, Jr.	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment of March 14, 2005 and telephone interview of May 26, 2005.
2. ☒ The allowed claim(s) is/are 38-43, 45-54 and 56-75.
3. ☒ The drawings filed on 05 February 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>3/14/2005</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Clifford Ulrich on May 26, 2005.

In the Claims:

Claims 1 – 37, 44, and 55 were previously canceled.

Claims 39 – 43, 46, 47, 49 – 54, 56 – 66, and 68 – 75 STAND as set forth in Applicants' amendment of March 14, 2005.

Claims 38, 45, 48, and 67 now read as follows:

38. (Currently Amended) A reflection graduation, comprising:
a silicon substrate;

first subsections disposed on the substrate, each of the first subsections having etched oblique surfaces, the surfaces positioned such that light beams directed incident to the surfaces cause no retroreflection; and

second subsections having relatively higher reflecting properties as compared to the first subsections;

wherein the first subsections and the second subsections are alternately alternatively disposed on the substrate in a first direction;

wherein each first subsection includes at least one secondary V-shaped groove that extends in a second direction, perpendicular to the first direction, along nearly an entire length of an edge of each first subsection; and wherein the second subsections are substantially planar.

45. (Currently Amended) A reflection graduation, comprising:

a silicon substrate;

first subsections disposed on the substrate, each of the first subsections having etched oblique surfaces, the surfaces positioned such that light beams directed incident to the surfaces cause no retroreflection; and

second subsections having relatively higher reflecting properties as compared to the first subsections;

wherein the first subsections and the second subsections are alternately ~~alternatively~~ disposed on the substrate in a first direction; and

wherein the second subsections include a coating of highly reflective material.

48. (Currently Amended) A method for manufacturing a reflection graduation, comprising the steps of:

providing a silicon substrate; and

forming first subsections and second subsections that alternately ~~alternatively~~ extend in a first direction on the silicon substrate, the first subsections and the second subsections having different optical reflecting properties,

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in the first subsections, a plurality of oblique surfaces being produced by deep etching, the oblique surfaces positioned such that no retroreflection of the light beams incident thereto results; and

providing a coating of highly reflective material on the second subsections.

67. (Currently Amended) A method for manufacturing a reflection graduation, comprising the steps of:

providing a silicon substrate; and

forming first subsections and second subsections that alternately ~~alternatively~~ extend in a first direction on the silicon substrate, the first subsections and the second subsections having different optical reflecting properties;

wherein, in the first subsections, a plurality of oblique surfaces is produced by deep etching, the oblique surfaces positioned such that no retroreflection of the light beams incident thereto results;

wherein each first subsection includes at least one secondary V-shaped groove that extends in a second direction, perpendicular to the first direction, along nearly an entire length of an edge of each first subsection; and

wherein the second subsections are substantially planar.

Reasons for Allowance

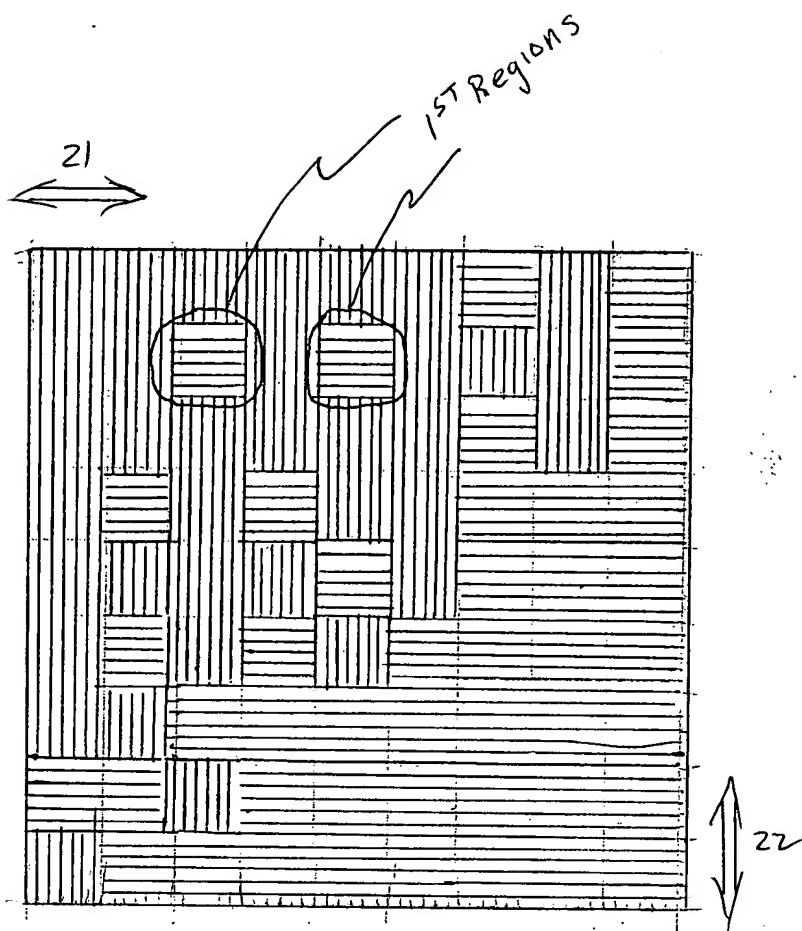
The following is an examiner's statement of reasons for allowance: The prior art, taken alone or in combination, fails to teach or fairly suggest *the combination*

particularly wherein each first subsection includes at least one secondary V-shaped groove that extends in a second direction, perpendicular to the first direction, along nearly an entire length of an edge of each first subsection *and* wherein the second subsections are substantially planar, as now recited in claims 38 and 67;

particularly wherein the second subsections include a coating of highly reflective material, as recited in claim 45; or

particularly wherein the method further includes the step of providing a coating of highly reflective material on the second subsections, as now recited in claim 48.

The examiner had previously relied upon Figure 8 of Kawama, et al (U.S. Patent number 5,725,006) as disclosing the structure of at least claim 38. Figure 8 of the reference is an alternative embodiment of Figure 6, and the examiner has sketched the structure disclosed in the reference, wherein the horizontal lines correspond to the horizontal grooves, and the vertical lines correspond the vertical grooved. The examiner has encircled "1st regions" intended to correspond to the first subsections, which alternate in a first direction (left to right) with second subsections, which comprise the vertical grooves. Arrow (22) shows the direction of preferential reflection for the first subsections, which is different than the reflection characteristic of the second subsections (which is preferentially in the direction of arrow 21). As shown, each of first subsections may be considered as borrowing a secondary V-shaped groove extending in a second direction (top to bottom), perpendicular to the first direction, and extending along the length of an edge of the first subsections. However, it should be clear that the second subsections are ridged and not "substantially planar". Even treating an *inclined*



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planar surfaces of the vertical ridges as second subsections, it cannot be said that the first and second subsections (plural) are “alternately” disposed on the substrate. Rather, a single first subsection alternates with two second subsections, followed by a plurality of second subsections in succession.

Although the reference discloses other embodiments wherein there are planar regions, it appears that only *impermissible* hindsight would motivate one to select specific structures from one embodiment and combine them with specific features in another embodiment so as to coincidentally meet the claimed structure. To do so would be to use Applicants’ disclosure as a roadmap to reconstruct the claimed structure, since the prior art fails to provide any motivation to make such a combination.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Post-allowance papers should be mailed to **Box Issue Fee**. Post-allowance papers may also be faxed to correspondence branch in PUBs. The fax number is (703) 308-5083. The **PUBs customer service** number is (703) 305-8497.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Juba whose telephone number is (571) 272-2314. The examiner can normally be reached on Mon.-Fri. 9 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Drew Dunn whose number is (571) 272-2312 and who can be reached on Mon.- Thu., 9 - 5.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2800.


JOHN JUBA, JR.
PRIMARY EXAMINER
Art Unit 2872

May 26, 2005